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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,130	04/24/2001	Isao Nishimura	206525US0	4417

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EXAMINER

HAMILTON, CYNTHIA

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 10/30/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,130

Applicant(s)

NISHIMURA ET AL.

Examiner

Cynthia Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8,9 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-2, 12-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6,8,9 and 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-6,8,9 and 12-18 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(d) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4-6, 8-9, 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanamura et al (6,306,559 B1). Examples 2, 5 and 6 of Tanamura et al make ribs and devices that anticipate the ribs and elements of instant claims 4-6, 8-9, and 14-15. The "Organic polymer substance" of Tanamura et al is the instant alkali soluble binder as evidenced by the alkali developer used to wash away the unexposed portion of the photopolymerizing resin composition of Tanamura et al in said Examples. The binders of Tanamura et al in examples 2 and 5 respectively are those set forth for Examples 1 and 4 and are clearly copolymers of an unsaturated acid monomer and other monomers. In Tanamura et al, the deposition preventing layer is the rib forming layer of the instant disclosure. In Tanamura et al, Examples 2, 5 forms a barrier rib of a reverse-tapered cross-section of about 50 ° which is within that of instant claim 14 as well as the range of instant claims 4-6, 8-9 and 15. The EL devices of Tanamura et al are held to inherently not have a volatile constituent beyond that limit set in instant claims 8 and 16-18. In Tanamura et al, also see particularly the Abstract, Figure 1 (a), Figure 2, Figure 3, and Figure 6 as well as col. 6, lines 50-59, col. 15-16 and col. 10-15 in reference to the photosensitive resin composition disclosed by Tanamura et al. A copolymer is not limited to only two monomers.

1. Claims 4-6, 8-9, 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanamura et al (6,306,559 B1). Examples 2, 5 and 6 of Tanamura et al make ribs and devices that anticipate the ribs and elements of instant claims 4-6, 8-9, and 14-15. The "Organic polymer substance" of Tanamura et al is the instant alkali soluble binder as evidenced by the alkali developer used to wash away the unexposed portion of the photopolymerizing resin composition of Tanamura et al in said Examples. In Example 1 it is the Example 1 resin composition that

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clearly has a copolymer made from an unsaturated carboxylic acid and other monomers. The binder of Example 5 is that at the top of col. 29 which again is copolymer made from an unsaturated carboxylic acid and other monomers. In Tanamura et al, the deposition-preventing layer is the rib-forming layer of the instant disclosure. In Tanamura et al, Examples 2, 5 forms a barrier rib of a reverse-tapered cross-section of about 50 ° that is within that of instant claim 14 as well as the range of instant claims 4-6, 8-9 and 15. The EL devices of Tanamura et al are held to inherently not have a volatile constituent beyond that limit set in instant claim 8. In Tanamura et al, also see particularly the Abstract, Figure 1 (a), Figure 2, Figure 3, and Figure 6 as well as col. 6, lines 50-59, col. 15-16 and col. 10-15 in reference to the photosensitive resin composition disclosed by Tanamura et al. What is not clearly found in Examples 2,5 and 6 in Tanamura et al is the broader scope of all alkali soluble resins as binders. However, in col. 13 of Tanamura et al in lines 35-54, a list of organic polymer binders are listed for optional use in their compositions. In view of an alkali developer being used in the examples of Tanamura et al, a worker of ordinary skill in the art would have considered the use of a polymeric binder that would be alkali developable because it is the nature of the binder as opposed to the polymerized monomer present in the imaged material that determines the nature of developer to be used. Thus, with respect to instant claims 4-6, 8-9, 14-18, the elements and deposition preventing layers of Tanamura et al make prima facie obvious the barrier ribs and EL elements of applicants disclosure.

2. Applicant's arguments filed August 20, 2003 have been fully considered but they are not persuasive. Applicants argue Tanamura et al does not disclose the instant binder (A) as now defined. The examiner has pointed out where it does have such a binder with respect to a

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copolymer with a polymerizable monomer with a carboxyl group and a copolymer of at least one selected from the group consisting of an unsaturated carboxyl acid. Thus, the claim language does not support applicants' arguments as they now stand in regard to Tanamura et al. The rejection stands as modified because of applicant's amendments.

1. Claims 1-3 and 12-13 considered part of Group III are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6, filed November 1, 2002.

3. This application contains claims 1-3 and 12-13 drawn to an invention nonelected with traverse in Paper No. 7. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01. Applicants' request for rejoinder of claim 12-13 is not granted for this reason. The examiner also notes that the process of claims 12-13 could be used to form elements other than those of the examined claims because there is no limitation to taper in the non examined claims. Process claims which depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance. Applicants' process claims do not include all the limitations of the product claimed. Amendments submitted after final rejection are governed by 37 CFR 1.116. Process claims which do not depend from or otherwise include the limitations of the patentable product will be withdrawn from consideration, via an election by original presentation (see MPEP § 821.03).

4. The examiner notes applicant's amendments to the claims with respect to requiring the presence of a substrate with regard to the taper angle in the barrier rib are sufficient to remove issues of rejection in view of Tokai et al and Briney et al.

4. Claims 8 and 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The barrier rib of claim 8 is now comprised of "a volatile component generated by heating from 25°C to 200°C in an amount of 10% or less of the weight

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of the barrier rib." The examiner notes that heating the rib from a temperature of 25° to a temperature of 200°C is not clearly a step in making the barrier rib thus it is not clear how the process step is part of the rib. It is not clear whether the volatile component is inclusive of the addition of volatile components after formation, is inclusive of only those volatile components that may have been generated in some fashion in making the barrier rib or is inclusive of components that were generated by heat, i.e. made, before addition to the rib in the range set forth. The examiner does recognize that 10% or less includes 0% of this component. The examiner notes that this is not a range of 25° to 200° C but a heating step of 25°C to 200°C. . It is not clear when this heating occurs and how the volatile component becomes part of the barrier rib. The same is true for claims 16-18.

5. Applicant's arguments filed August 20, 2003 have been fully considered but they are not persuasive. Applicants argue they have fixed claim 8. They state "It is the amount of volatile components measured when heating the barrier rib at the defined temperature that is defined in the claim, it is not a step in the making of the barrier rib." The examiner is not sure how this removes the issue of if the volatile component is present in the barrier rib or not. Is it present? Is it possibly present? Is it to be present if the layer is heated? The confusion of this claim still remains and is the same as in claims 16-18. Do applicants intend a material with no generated volatile component to be covered by claims 8 and 16-18? It would not be if the volatile component is required present. The rejection stands because the confusion is still present.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 4-6, 8-9, 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Markush group placed in claim 4 by amendment is confusing. Does a homopolymer of a radical polymerizable monomer having a phenolic hydroxyl group or carboxyl group refer to all homopolymers with carboxyl groups or only phenolic groups with carboxyl groups? Does "the radical polymerizable monomer" refer to "a radical polymerizable monomer"? If it does it should be "said radical polymerizable monomer. IS the copolymer of at least "on" selected from the group consisting of have a group of 4 monomers? The group is never clearly closed until (B). These questions leave unclear what binder is being claimed by applicants in their rib.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is (703) 308-3626. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on (703) 308-2303. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 0661.

Primary examiner Cynthia Hamilton
October 28, 2003



CYNTHIA HAMILTON
PRIMARY EXAMINER